

Newark
- Housing Authority
- MISC.

1935

PUBLIC HOUSING MASTER PLAN NEWARK, N.J.



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PUBLIC HOUSING MASTER PLAN

NEWARK, NEW JERSEY

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Newark Redevelopment & Housing Authority
57 Sussex Avenue, Newark, New Jersey 07103
(201) 430-2430

PROFESSIONAL CONSULTANTS

The Ehrenkrantz Group, P.A.:
The Master Plan Base Case

Geddes, Brecher, Qualls & Cunningham:
Scudder Homes (NJ 2-19)

Gregory Crozier, A.I.A. (Crozier, Philippi Associates,
P.C.):
Hayes Homes (NJ 2-12)

Mario Schack, F.A.I.A. (The Delta Group):
Baxter Complex (NJ 2-5 and NJ 2-22B)

Thomas A. Todd, F.A.I.A. (Wallace, Roberts & Todd):
Kretchmer/Boyden Complex (NJ 2-1; 2-10; 2-17;
2-21A, E and F)

Edward A. Valeri, A.I.A. (Cashin Associates, P.C.):
Scattered Sites (NJ 2-31)

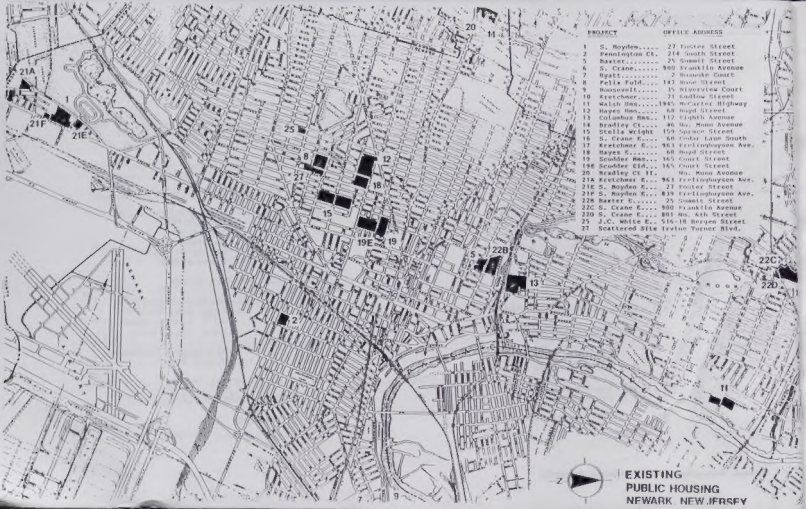
Brown & Hale:
Scattered Sites (NJ 2-30, 2-36 and 2-37)

Clarke & Caton:
Scattered Sites (NJ 2-29 and 2-35)

Morton Farrah:
Editing

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PROJECT

OFFICE ADDRESS

1 S. Boyden.....	27 Foster Street
2 Pennington Ct.	214 South Street
5 Baxter.....	25 Summit Street
6 S. Crane.....	900 Franklin Avenue
7 Hyatt.....	2 Newark Court
8 Felix Fuld.....	147 Main Street
9 Roosevelt.....	15 Riverside Court
10 Kretschmer.....	71 Endlow Street
11 Walsh Hqs.....	1845 McCarter Highway
12 Hayes Hqs.....	68 Ingot Street
13 Columbus Hqs.....	112 Eighth Avenue
14 Bradley Ct.....	46 W. Main Avenue
15 Stella Wright	159 Spruce Street
16 S. Crane E.....	80 Cedar Lane South
17 Kretschmer E.....	963 Frelinghuysen Ave.
18 Hayes E.....	68 Ingot Street
19 Scudder Eld.....	165 Court Street
19E Scudder Eld.....	165 Court Street
20 Meadley Ct. II.	W. Main Avenue
21A Kretschmer E.....	963 Frelinghuysen Ave.
21C S. Boyden E.....	27 Foster Street
21F S. Boyden E.....	819 Frelinghuysen Ave.
22A Baxter E.....	25 Summit Street
22C S. Crane E.....	900 Franklin Avenue
23 S. Crane E.....	801 W. 8th Street
25 J.C. White E.....	516-18 Bergen Street
27 Scattered Site	Levine Turner Blvd.

EXISTING
PUBLIC HOUSING
NEWARK, NEW JERSEY

1.0 INTRODUCTION

The Newark Housing Authority is the largest Public Housing Authority in New Jersey and the eighth largest in the nation. The Authority owns 13,133 housing units of which approximately 3,000 are at family low-rise projects, 7,000 at family high-rise projects and 3,000 at elderly high-rise projects. (See Table 1).

Unlike most urban areas, where public housing constitutes less than 5% of the local housing stock, Newark's public housing constitutes over 10% and in 1980 provided housing for 18.7% of Newark's low-income population. A plan to improve Newark's public housing necessarily has profound implications for the city as a whole.

This document presents a five year Master Plan for the revitalization of Newark's public housing system. After two years of research, the Authority and its consultants have concluded that public housing must be restructured, not just refurbished, if the causes of vacancy and deterioration are to be eliminated and the quality of life improved.

Much of Newark's public housing, though in need of modernization, is basically sound and provides appropriate living environments for its occupants. The family high-rise projects, however, pose major problems. They are the most expensive to operate and maintain, absorb most of the capital budget, contain the highest

percentages of families in rent arrears, and generate the most complaints about living conditions and crime. The 46 family high-rise buildings are situated at six projects, and range in height from seven to thirteen stories. Designed densities are as high as 100 units per acre and 250 bedrooms per acre. Throughout the Authority, 812 dwelling units contain four or more bedrooms, and all but sixty are within high-rise projects. About one-half of the family high-rise units are now vacant.

The Authority recognizes that high-rise buildings are inappropriate for households with children, especially large families. Interior common areas (halls, stairways, and elevators) significantly decrease the ability of parents to observe and control their children's activities outside of the apartments. Vandalism and burglary are severe problems, and are largely attributable to multiple building entrances which are difficult and expensive to monitor and protect. Conditions at family high-rises place a huge financial burden on the Authority, adversely affecting service to other projects.

The problems experienced at the family high-rise projects have been far less common at the low-rise and elderly projects, except for those units in close proximity to family high-rise buildings. Tenant preference for low-rise housing is clearly demonstrated by low vacancy rates at these projects.

To alleviate these problems, this Master Plan recommends a very different mix of housing at the end of five years than currently exists. Its goal is to substantially reduce the number of high-rise units and replace them with a mix of townhouses and low-rise apartments. Key elements of the plan include:

*The reconfiguration of the lower floors of high-rises into large units with individual private entries for families with children. These units would be near outdoor recreation areas where children could be observed and supervised by their parents. The upper floors would contain separately accessed, smaller units, to be occupied by childless households. This would substantially reduce the use of elevators and public corridors by children.

*The construction of over 1,200 3-, 4- and 5-bedroom townhouse units for relocation of families with children now living in the upper stories of high-rise projects.

*The demolition of several of the 46 family high-rise buildings. Thirteen buildings have been closed, and the relocation program for closing three more is well advanced. Although these buildings have drained the Authority of its resources, demolition will be feasible only if funds are made available for the other components of this plan, especially the production of new townhouse units.

*The full modernization of all low-rise and elderly projects to meet HUD modernization and building code standards, plus reconfiguration, as necessary, to meet the apartment size requirements of public housing residents.

The above actions would significantly reduce housing densities at the high-rise projects. The development schedule permits all of the above actions to be implemented while continuing to accommodate all current households not in arrears in rent or otherwise in violation of their lease (tenants-in-good-standing).

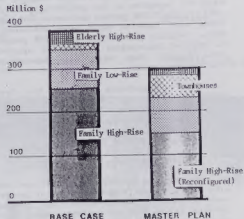
Extensive modernization or reconfiguration requires that buildings first be vacated. During the early stages of Master Plan implementation, dislocated households are temporarily or permanently relocated to refurbished units throughout the Authority. As fully modernized units and new townhouses are completed, they will be used for permanent relocation. Those tenants-in-good-standing relocated temporarily to another family high-rise building, and who wish to stay at or return to their original project upon completion of its modernization, will be given highest priority for available units. Other tenants-in-good-standing who are transferred to refurbished low-rises are to receive the next highest level of priority to return to modernized projects. Because many households will choose not to return, it is expected that nearly all of those who wish to return to their original projects will be able to do so. As implementation of the plan progresses, the choice of fully modernized apartment buildings and new townhouses will broaden. The number of households requesting to move back to their original projects, therefore, will probably progressively diminish.

Upon full implementation of the plan, all projects will meet current HUD standards, and occupancy is projected at over 90%.

Total capital cost for plan implementation is estimated to be \$298 million (1984 dollars). This is about three quarters the amount required to bring all units in their current configuration up to HUD's modernization standards as determined by The Ehrenkrantz Group in Base Case Modernization Requirements, December 1983. (See Section 6.0)

Implementation of the first phase of the plan is well underway. Approximately one-third of the required funds have been committed by HUD, and the remaining funds required to complete the plan are within the amount that the Authority should reasonably expect to receive over the next five years. Moreover, thirty-five percent of the required housing production envisioned by the plan has been funded, and by Spring 1984, was either under construction or in design. An Authority request for funds for another 200 units, amounting to another fifteen percent of the total housing production required, is under review by HUD. Architectural design is in progress for the expenditure of nearly \$60 million dollars in approved modernization funds. Merger of one-bedroom apartments in low-rises to form larger units in which to relocate families with children from high-rises has been underway since June 1984.

The remainder of this report presents the details of the Master Plan. Section 2.0 provides a short history of public housing in Newark and a discussion of the changes that led the Authority away from a piecemeal view of projects toward a comprehensive view of the entire public housing system. Section 3.0 defines the goal of the Master Plan. Section 4.0 presents strategies for achieving that goal and Section 5.0 describes the plan by housing type. Capital costs and the development schedule are described in Sections 6.0, and 7.0 respectively.



CAPITAL COSTS

2.0 BACKGROUND OF THE PLAN

2.1 Growth of Public Housing

2.1.1 1940-1952

Public housing in Newark was initially developed under provisions of the Federal Housing Act of 1937. From the inception of the program in 1940, through to 1952, nearly 3,000 garden apartment and townhouse type units were built at eight sites scattered across the city. Initially built at 37 units (99 people) per acre to replace deteriorated housing of approximately the same density, they were, by later standards, small low-density projects.

The neighborhoods in which this first phase of public housing was built consisted of medium-density residential areas supported by local retail and community service facilities. The average apartment size was 2-bedrooms, with only one-half of one percent of the units being larger than 3-bedrooms.

2.1.2 1952-1963

Whereas the Housing Act of 1937 was enacted primarily as a public works employment program with a socially valuable end-product, the purpose of the Housing Act of 1949 was to bring about "the elimination of substandard and other inadequate housing through the clearance of slums and blighted areas, and the realization, as soon as feasible, of the goal of a decent home and a suitable living environment for every American family." The demands of veterans and the long period of little housing growth during the depressed 1930's and the war years that followed motivated a change in emphasis to housing rather than employment.

By 1952, Newark had completed its first elevator-serviced public housing projects - Kretchmer Homes (NJ 2-10) and Walsh Homes (NJ 2-11). These projects were mixtures of seven and eight story buildings and 3-story walk-up buildings. They increased Newark's public housing stock by over 50% in two years, and their construction was seen as a bold step toward meeting the needs of low-income households. Density at these projects (165 people per acre) was 67% higher than that of the previously constructed low-rises. Kretchmer was located at the Elizabeth border within a medium-density residential area, only a few blocks from the Seth Boyden low-rises, built thirteen years earlier. Newark's first public housing neighborhood was beginning to develop. Walsh Homes, however, was isolated in an industrial area in the North Ward. The two projects totalled 1,369 units, an average of 46 units per acre.

Shortly, these bold steps were to appear timid. Over the next 12 years (1952-1963), four more high-rise projects were built, containing 5,537 units at 90 units (313 people) per acre. Three of the four - Hayes Homes (NJ 2-12), Stella Wright Homes (NJ 2-15) and Scudder Homes (NJ 2-19) - were constructed within a few blocks of each other in the Central Ward. Along with Columbus Homes, one mile to the north, these projects were built at densities far higher than any other in Newark. Scudder Homes was designed to house 380 people per acre - over four times that of the housing it replaced.

Apartment and room sizes were well below standards currently acceptable. Bedrooms designed to accommodate two people were only large enough for a single bed. Doorless bedroom closets were situated in hallways. Public corridors were only 4 feet wide (and 140 feet long). Elevators stopped on alternate floors. Tiny but numerous lobbies presented security problems. The massive buildings were stark and institutional, and bore no connection to anything else in the city.

The findings were so large that they could not be accommodated on standard city blocks. Streets were closed and "super blocks" were created to accommodate these free standing brick behemoths. By 1963, they accounted for 70% of Newark's public housing units. Plans for urban renewal projects surrounding the Central Ward public housing called for the construction of new convenience shopping on nearby cleared land. Little was built, however.

2.1.3 1962-1977

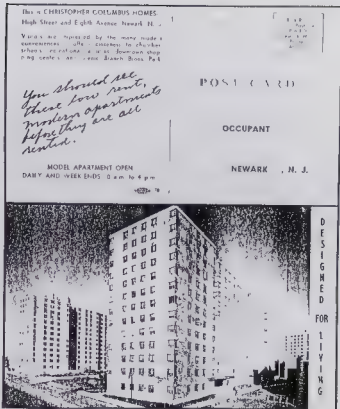
In 1962, Newark's first public housing elderly project, Hayes Homes Elderly (NJ 2 18), was completed, and it was followed, a few months later, by two sister projects (NJ 2-16 Stephen Crane and NJ 2 17 Kretschmer Homes). For the next 15 years (1963-1977), Newark was to build only elderly projects, and most were built adjacent to existing family projects.

Housing for the elderly was far more acceptable to the public and much easier and less costly to operate than the family projects. By the end of 1977, the Authority owned and managed 13,006 housing units, 3,153 of which were elderly.

2.1.4 1978-1984

Between 1978 and 1984, only 127 units were added to Newark's public housing stock. This was foreshadowed by several key events that occurred during the third phase.

The Brooke Amendments of 1969, 1970 and 1971 affirmed that public housing, in addition to being "safe, sound and sanitary" also had to be affordable.

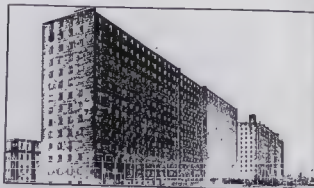


1950s promotions, post card for Columbus Homes family project.

These amendments defined household income as gross income less an allowance for each dependent, and set rent at 25% of this adjusted amount. Since the rents established were clearly insufficient to provide safe, sound and sanitary housing, an operating subsidy was initiated by the Housing Act of 1970 to make the new rule workable. Public housing, which prior to the Bracke Amendments could generally be operated using rental income alone, now required a sizeable subsidy. In 1968, the year before the first Brooke Amendment, the Federal contribution to public housing operations, nationwide, was \$302 million dollars. By 1977, the Federal contribution had grown to \$1.7 billion dollars. During this period (1962-1977), soaring inflation and rising energy costs increased Newark's operating expenses by 127% while rental income decreased by 6%. Highly visible family high rises were deteriorating at an alarming rate. Vacancy climbed, further undermining operating income and swelling subsidies.

Recognizing that some projects simply could not be made to work, HUD authorized the demolition in 1972 of the huge Pruitt-Igoe family high-rise project in St. Louis. The same project, which had received architectural awards upon its completion just 19 years earlier, was similar in many ways to the family high-rises in Newark.

A reassessment of subsidized housing was needed and, in 1973, a moratorium on new public housing construction was declared by the President. Only previously authorized projects could be built. Whereas the public housing stock increased by 280,000 units from 1969 through 1973, it increased by only 120,000 units over the following four years. The program has not been restored to this day. Since 1978, a net loss in the public housing stock has been experienced nationally because of deprogramming, disposition and minimal new



Family high-rise buildings and typical lobby entrance. Such housing will no longer be built, but the legacy of past decisions remains.

Another key event negatively affecting public housing during this period was the 1967 Newark disturbance which started at Hayes Homes. It left 26 people dead and vast areas of the Central Ward burned out.

Long-term social and economic damage of the disturbance far exceeded the physical damage. The on-going exodus of the middle class accelerated. From 1960 to 1970, Newark lost 5.7% of its population and from 1970 to 1981, another 13.8%. Per capita income in Newark grew at less than half the rate for the nation as a whole between 1960 and 1980. By 1983, Newark was the poorest major urban center in the United States, with per capita income of \$4,525.

A consequence of this exodus was a plummeting tax base, which necessitated a reduction of public services. Major area employers such as P. Ballantine & Sons, Remco Inc., and the Oxite Corporation closed their facilities. In 1971, Newark's unemployment rate was 11.17%. (Among Blacks, who constituted the majority of public housing's population, it was several times higher). By February, 1971, unemployment soared to 14.5% - the highest it had been since the Depression - and by 1972, 73% of all public housing families relied on public assistance as their only source of income.

The formula based operating subsidy did not sufficiently compensate for declining rental income, and many needed improvements at the family high-rises were necessarily deferred. In 1969, poor conditions at Stella Wright Homes (NJ 2-15) precipitated a rent strike which spread to four other high-rise projects and lasted five years. It was the longest rent strike in public housing history, and most of the back rents have not yet been recovered.

2-2 The Planning Program

HUD requires that public housing authorities maintain an operating reserve of at least 20% of their annual operating budgets. By 1978, the Newark Housing Authority had fallen well below this level, and HUD initiated a Comprehensive Management Review. The review found the Authority to be \$4.0 million dollars in debt and insolvent.

In the summer of 1979, a new Authority administration took control, and its first priority was to return the agency to a sound financial posture. This was accomplished within a year through the introduction of financial controls along with severe reductions in staff and operating expenditures. Once financial health was restored, highest priority was given to repair and restoration of Newark's public housing stock which had suffered years of neglect.

In 1979, several modernization projects, fully funded and underway, called for major improvements at several of Newark's high rise projects. These projects were then between 20 and 30 years old and were in significantly worse shape than the 40 year old high rises, which had received only one half as much modernization funding per unit per year. The new Authority administration soon realized that the deteriorated condition of these projects was contributing to, rather than allaying, underlying social problems and that simply making them "new" again was a waste of money.

This belief was reinforced when lobbies at Columbus Homes were twice vandalized in 1980, immediately follow

ing their substantial modernization. Failure of this effort, which was initiated under the Authority's previous administration, was a major factor in the decision to curtail patch work programs at Newark's family high rises until a workable plan was developed. By taking this action, the Authority safeguarded remaining modernization funds for future use in a comprehensive program.

A survey conducted by the Authority's consultant, The Ehrenkrantz Group, indicated that \$277 million would be required to restore Newark's public housing to meet HUD's Modernization Standards and state and local code requirements. The inclusion of architectural and engineering fees, administrative expenses, and cost escalation since the date of the survey, brings the total to \$386 million in 1984 dollars, or approximately \$29,400 for each of the Authority's 13,133 housing units.

Comprehensive planning for public housing became feasible in 1980 when HUD initiated the Comprehensive Modernization Program. Nationwide, specific projects proposed for major rehabilitation competed with each other for funds. HUD selected Newark's application for the 1,674 unit Scudder Homes project, the City's largest, whose eight half vacant high rise buildings were in an advanced state of deterioration. Funds for planning were part of the \$23 million approved for the Comprehensive Modernization of Scudder Homes.

The following year, HUD initiated the Comprehensive Improvement Assistance Program (CIAP). Under this program, all funding was to be restricted to three categories: 1) Emergency (life threatening conditions), 2) Comprehensive (total project modernization), and 3) Special Purpose (energy cost saving). Each year a different housing project was to be funded for Comprehensive Modernization, which was to be completed in two or, at most, three years.

The scope of the Scudder planning program was to include social, management, and financial components as well as physical improvements. Also included were provisions for review of its neighborhood setting and of the availability of units at other Authority projects in the event off-site relocation was deemed necessary.

Rapidly increasing capital and operating costs at the family high rise projects, a growing realization that modernization could not be effected with available relocation resources, and forecasts of reduced future funding availability forced the Authority to rethink its capital spending priorities.

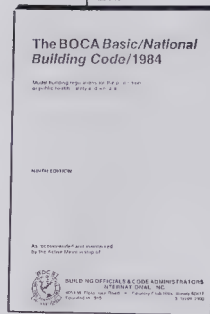
With this in mind, the Authority expanded the planning program to cover all of its 27 housing projects. For the first time, social, physical, financial and management needs of all public housing in the City were to be determined on an integrated basis as part of a formalized planning process.

2.3 The Base Case

During the summer and early fall of 1982, The Ehrenkrantz Group commenced a survey of all of the Authority's buildings and grounds as to use and condition. Codes, ordinances and regulations controlling use and maintenance were reviewed in detail for each project. Occupancy, crime, maintenance and financial data were gathered, assembled and analyzed. This huge data base was then distilled by The Ehrenkrantz Group into the "Base Case," a preliminary analysis submitted in December 1983.

The Base Case was not, nor was it intended to be, a plan for action. Experience had demonstrated that rehabilitation of projects to original standards was frequently neither economically nor socially effective. The main purpose of the Base Case was to serve as a benchmark against which the Authority could compare alternative objectives and priorities. The Base Case costs for each project were the minimum required to meet HUD's Modernization Standards and to fulfill state and local regulations.

In 1984 dollars, the total Base Case cost for all 13,000 dwelling units is \$386 million, including administration and professional fees. The Master Plan, however, proposes a mix of housing production, modernization and demolition to provide 9,000 housing units at a cost of \$299 million. Furthermore, unlike the Base Case, the resulting housing mix will meet the housing needs of current households.



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1. Introduction

Program Participants
and Departmental
Staff

Public Housing
Modernization
Standards

Building standards
used in Base Case.

3.0 GOAL OF THE MASTER PLAN

The Master Plan establishes specific targets to be achieved over five years for a wide range of financial variables at each project, and presents cost estimates for their achievement. Underlying this detail, however, is a single goal to which all financial and physical strategies are directed. Formally stated, the goal of the Master Plan is to provide safe, sound, sanitary and appropriate housing, that has long term viability, for all current tenants in-good-standing.

Key terms of the goal are defined as follows:

"Sound", "safe" and "sanitary" means full compliance with all HUD standards as set forth in the Modernization Standards Handbook (7845.2) as amended (June 1984) and all requirements of the New Jersey Uniform Building Code (1984).

"Appropriate housing" is a dwelling unit of the size and type needed by the occupants. A unit of appropriate size provides one bedroom for the head of household and spouse (if any) and one bedroom for every pair of additional household members of the same sex. No unit for households with children is to be elevator accessed. Project density shall not exceed the limits shown in Section 4.3. The disabled and handicapped are of all ages and have as wide a range of housing needs as other residents. Specifically, their needs are to be addressed in the design of individual projects.

"Long term viability" means that the housing is to be operationally self-sufficient at current subsidy levels in constant dollars plus a reasonable reserve for capital replacement.

"Current tenants in good-standing" are public housing households having histories of timely rent payment and no serious incidents of lease violation. For purposes of quantifying the demand for housing generated by current tenants, tenants less than six months in rent arrearage are classified as tenants-in-good standing. This is not to be construed to be an acceptable level, but is used only to assure that relocation needs would not be underestimated.

Based upon the Master Plan goals and criteria, over one half of Newark's current public housing tenants are inappropriately housed. The Authority's first obligation is to be a responsible landlord; thus this five-year plan is designed to meet the needs of responsible tenants. Some leeway has been built into the plan projections, allowing for the housing of some prospective tenants from the waiting list. After five years, some units will be available for new tenants, and the proposed mix of completed units exceeds current tenants needs by 10%.

The Housing Act of 1937 requires the Authority to provide "sound, safe and sanitary housing" for low income households. Though modified over the years by amendments and implemented through myriad regulations, this mandate remains intact and is necessarily incorporated in the Authority's goal.

The Authority recognizes that housing smaller households, the elderly, and the higher income levels of eligible households constitutes a far less profitable course than the one taken. In focusing its Master Plan on current tenants, the Authority reaffirms its commitment to meeting the needs of large, very poor households.

The goal statement requires the following housing mix to accommodate current tenants in-good standing

UNIT SIZES AND TYPES NEEDED BY CURRENT RESIDENTS

	TYPE	NEED
FAMILY	2 - BR	1,093
	3 - BR	1,724
	4 - BR	493
	5 - BR	126
ALL-ADULT	1 - BR	1,017
	2 - BR	781
ELDERLY	1 - BR	2,616
	2 - BR	356
TOTAL		8,206

The Master Plan calls for a total of 9,000 units, which exceeds the above need by 10%. This surplus allows for flexibility in relocating tenants, accommodation of changing household composition, and a reserve for emergencies. Attrition cannot be reliably projected, but appears to be declining. Because of the uncertainty of the number and types of units which will be vacated during the next five years, they are not considered as a relocation resource. They will be used, therefore, to meet any extraordinary emergency need and to accommodate some households on the waiting list.



Elements in meeting the goal for housing families with children in like private entrances and yards for the larger dwelling units.

4.0 DEVELOPING STRATEGIES

The planning process begins with the identification of problems to be solved. This initial step is often complex because the obvious problems are often merely symptoms of more deeply rooted problems that go undetected. Nonetheless, it is instructive to start with the obvious and work backward to root causes.

Newark's public housing system suffers from high vacancy and physical deterioration. The vacancy rate, which has grown from under 10% to over 35% in ten years (and has finally leveled off), is the highest of any large housing authority. Based upon a national survey conducted by HUD in 1979, the level of deterioration in Newark's public housing is among the most serious in the nation.

4.1 Causes of Vacancy and Deterioration

The commonly held belief that normal wear-and-tear combined with insufficient capital replacement are the primary causes of physical deterioration does not stand up under analysis for Authority projects.

In 1982, the Authority conducted a Physical Needs Assessment of all projects. The age of family low rise projects averaged 40 years, compared with 26 years for the family high rise projects. The "normal wear and tear" theory would suggest that the former would show

more deterioration than the latter. This was not the case. The Physical Needs Assessment revealed that the older low-rise projects required \$23,646 per dwelling unit to fulfill HUD modernization standards while the newer high-rises required \$38,446 per dwelling unit (63% more) to meet the same standards.

The age of family projects was negatively correlated to deterioration: the older the project, the better its condition. The high rises had received twice the amount of modernization funding per unit per year than the low rises. Furthermore, \$30 million dollars of committed, but still unspent funds, were earmarked for modernizing the high rises, where past investment had been ineffective.

Recognizing that age, per se, was not the cause of the excessive deterioration at the high-rises, other potential causes were sought. Demographically, the family high rises differed little from the family low rises, except the low rises had higher concentrations of long term elderly residents. Over time, those who could afford to vacate the high-rises have done so, leaving a greater concentration of lower income families of und. household incomes, however, were originally similar, as was the distribution of households headed by single parents. With few exceptions, the ethnic composition was similar.

However, the high-rises were, naturally, taller than the low-rises. They were also larger in total units per project and designed at significantly higher densities. All three of these factors contributed to the institutional character of the family high rises, which implied that their occupants were somehow different than other Newark residents. Resentment of the

family high-rise design might well be the reason for their evacuation. Though designed at a density almost three times that of the low-rise projects, higher vacancy rates at the family high rises reduced true density to only 60% more than that of the low rises.

Three correlation analyses were performed comparing design density, project size (number of units) and building height (average number of stories) to the July 1982 vacancy rates for low-rise and high rise family projects. All three analyses proved to be statistically significant, yielding coefficients of correlation higher than .9. (A coefficient of correlation of 1.0 indicates perfect correlation while one of 0 indicates no correlation.) Projects designed for fewer than 150 people per acre, containing fewer than 400 units, and three stories or less in height, had vacancy rates under 10%. The analysis indicated that vacancy rates increased by almost 9% for every additional 50 persons per acre in design density, by 2% for every additional 50 dwelling units per project, and by 5% for every additional story.

These analyses, though useful in explaining vacancy at the family projects, did not explain the diversity of vacancy rates at projects for the elderly, all of which were of similar design, density and height. Interviews with tenants pointed to the crime rate as a possible explanation for this aspect of the Authority's vacancy problem.

Whereas deterioration and vacancy are the most serious problems confronting public housing from the Authority's and HUD's point of view, crime (and the fear that it generates) is seen by the residents as the most serious problem in public housing. Tenant interviews frequently start with their request for additional security.



Reported crime more than doubled at public housing projects in Newark between 1979 and 1982 and showed a strong pattern of movement from the project grounds to the project buildings. (Increased police patrols may account for this movement toward less easily observed locations.) Crime was highest in the family high rises, all of which had unsecured entries, each leading to a large number of units. The crime rate was relatively low, however, in low-rise buildings and in elderly high rises having centralized entrances and Authority management offices in the lobby. Unfortunately, the family high-rise buildings have multiple, unsecured entries. At some projects, reported major crimes were as high as 1,830 per 10,000 population annually - almost one crime for every five persons.

Physical improvements and related measures to counter crime and the fear of crime are described in Section 5.6. The purpose here is to examine the vacancy problem that appears to result from crime.

Data on reported crimes (1982) was collected at all projects (21) for which it was available. The hypothesis that crime was a major cause for vacancy was then analyzed. The resulting correlation was statistically significant, yielding a coefficient of correlation over .9.

In broad terms, where crime rates were under 800 crimes per 10,000 population, vacancy was under 5%. But as rates increased beyond 800, vacancy accelerated dramatically. At a crime rate of 1200, the vacancy rate was 12%, and at 1800, the vacancy rate increased to over 30%.

Aside from providing a broad view of the relationship between crime and vacancy, the analysis suggested answers to questions about specific projects. Vacancy

at elderly projects was relatively low with the exception of those in close proximity to Kretschmer Homes (NJ 2-10), Hayes Homes (NJ 2-12) and Soudder Homes (NJ 2-19). At elderly projects adjacent to, or surrounded by these family high-rise projects, vacancy averaged almost 30%, whereas vacancy at other elderly projects averaged only 6%. Crime rates at Hayes, Kretschmer and Soudder family projects ranked first, second and fourth respectively among all projects. Elderly projects proximate to high crime family projects had significantly higher vacancy rates than similar projects elsewhere. Moreover, construction of new subsidized elderly housing elsewhere in Newark and environs in recent years afforded more attractive options to those seeking such housing.

Similarly, the only low rise project with a vacancy rate in excess of 6% was Seth Boyden Court (NJ 2-1), where vacancy was almost 16%. The crime rate there was more than twice the average for all other low rise projects. This project is situated near the Kretschmer family high rises, which have the second highest crime rate of any project in Newark.

A second factor that appeared to affect vacancy rates at projects for the elderly was the number of 0 bedroom (efficiency) units at these projects. The elderly living alone strongly prefer one bedroom units. Whereas only 8% and 16% of the 1 bedroom and 2 bedroom units, respectively, were vacant, 36% of all elderly 0 bedroom units were vacant. Locational analysis indicated that although 0 bedroom units were not positive vacancy rates at the elderly projects were far more likely to be related to crime than to the presence of 0 bedroom units. The elderly apparently were more willing to accept these units at a project they felt was safe than a one bedroom unit in a project they deemed to be crime ridden.

Physical deterioration was more difficult to explain than vacancy. As noted, the age of the projects was not a significant factor, because the older family low rise projects were generally in better condition than the newer family high rise projects where more capital had been reinvested per unit. Since neither age nor level of capital reinvestment provided a unifying explanation for what had happened to the high rises and low rises collectively, the two groups were analyzed separately.

For the family low rises, a clear explanation emerged. Analyses of modernization funds invested in each project suggested that capital reinvestment had contributed positively and proportionally to physical conditions at the low rises.

This was not true, however, at the family high rises. The most seriously deteriorated, Scudder Homes (NJ 2-19), was the newest family high rise project (1961) and had received the most capital reinvestment (\$472 per unit per year) of any project in Newark.

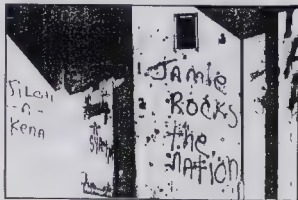
The three factors affecting deterioration are wear and tear, capital reinvestment and abuse of property. Since the first two failed to provide a rational explanation for deterioration at Newark's family high rises, it was decided to analyze the third factor abuse of property. Direct analysis proved difficult since data to measure the extent of project vandalism did not exist. An indirect approach was, therefore, used.

Interviews with tenants and maintenance personnel suggested that vandalism was the major cause of deterioration at the family high rises and that vandalism was a reflection of tenant discontent. The most obvious

sources of tenant discontent are poverty and resentment of the physical environment at the projects. To determine if these were statistically related to vandalism, and in turn, physical deterioration, descriptive variables were selected for each.

To describe poverty, per capita income was used. To describe the physical environment of the projects, design density (persons per acre), project size (number of units) and building height were used.

To describe the level of deterioration, the Base Case cost per square foot to bring the projects up to HUD modernization standards was used. The findings were highly significant.



Tenant discontent expressed in the form of property abuse.

High correlation was shown between each of the variables describing the physical environment (design density, project size and building height) and physical deterioration, and when all three were used simultaneously as explanatory variables using multiple regression, almost perfect correlation resulted (coefficient of multiple correlation = .99).

This meant that excessive deterioration at high rise family projects was neither due to wear-and-tear nor insufficient capital replacement but rather to tenant discontent that expressed itself in the form of abuse of property. This conclusion was further supported by the previously discussed finding that vacancy was also closely correlated to the same explanatory variables.

A second finding was that income per capita had become considerably lower at the family high-rises than at the family low rises, but that there was virtually no correlation between poverty and deterioration within either group. Apparently, tenants who could afford to vacate the family high-rises in favor of alternative housing moved out, leaving the poorest of the poor behind. Further support for the belief that the very poor were "trapped" was the long tenure of those remaining tenants at family high rise projects. But poverty, per se, apparently did not generate a disrespect for property.

Among the three variables used to explain vacancy and deterioration, building height, by far, had the strongest correlation to both, prompting further analysis of this single factor.

Throughout the Authority, the top floors of family

high rise buildings are almost totally vacant (some because of water damage from roof leaks). The next to top floors have the next highest vacancies and so on. Vacancy continues to decrease to the ground floor, where most units have been sealed for security reasons. Whereas middle and upper income private market tenants pay premium rents for upper level apartments, public housing tenants apparently prefer lower levels. The reason for this preference is the poor condition and performance of elevators at the public housing high rise.

Elevators at the larger family high rises are "skip stop" i.e., stop on alternate floors - one assigned to even floors, the other to odd. If one becomes inoperable, half of the floors in the building lose service, forcing residents to walk up or down one flight via stair towers generally perceived as crime ridden. Sometimes, both elevators are inoperable, forcing upper floor residents to walk to their apartments.

The vacating of upper floors usually starts with one or more tenants requesting transfers, or simply moving without authorization into a vacated unit on a lower floor. The vacated upper floor units are not reticulated and their steel entry doors are welded shut. Some are unsealed and occupied by squatters, turned into clubs, or vandalized for their fixtures or for no apparent reason. This activity accelerates, with further move outs from the upper floors, which soon become totally vacant. With fewer tenants to report violations, vandalism and crime flourish, ultimately resulting in building abandonment. Thus, problems with elevators start a chain of events having far reaching financial, physical and social consequences.

Review of maintenance logs at the Authority reveals that virtually the only cause of elevator breakdowns is vandalism. Doors, controls and even relays are frequently and deliberately broken at the family projects, whereas these problems do not occur at projects for the elderly.

Vandalism is primarily attributed to children. Family high rise buildings contain, on average, 45 children per elevator.

Uncontrolled lobbies allow outsiders, both children and adults, ready access to this highly vulnerable equipment.

4.2 Meeting The Goal Qualitatively

To understand vacancy and deterioration in Newark's public housing, many potential causes were explored, most of which had to be rejected. The hypotheses that were supported by the available data, however, have important design implications for new and existing public housing. Most significant among these were:

1. Families prefer small low-rise projects built at low densities in contrast to large high rise projects built at high densities. This is reflected in lower vacancy rates at the low-rises. This finding was further supported by relocation surveys of all tenants in one building each at Scudder Homes (NJ 2 14) and Hayes Homes (NJ 2 12), both high rise projects. Both surveys showed overwhelming tenant preference for low rise projects.

2. High crime rates reflect high vacancy at family high-rise, family low rise and elderly projects

3. The level of capital reinvestment in family low-rise projects is directly related to their current condition. The greater the capital reinvestment the better their condition.

4. An increase in capital reinvestment at family high-rise projects has, at best, only temporary impact. The high rise family projects needed the most capital reinvestment in the past, need the most now and, if not redesigned, will continue to need the most in the future.

5. Tenant discontent, resulting from the inappropriate design of housing (high density, large project size, tall elevator buildings), is expressed as the abuse of property which is reflected in the high deterioration rates at family high rise projects.

6. Sufficient housing options allow the elderly to reside outside of public housing rather than live in high crime neighborhoods. Though less marketable than larger units, some efficiency apartments may be rentable at elderly projects but only if crime can be averted.

Based upon these surviving hypotheses, the following design decisions are incorporated into the Master Plan.

1. All new family housing projects (housing production) will be low rises (3 stories or less) at densities

1. of around 100 persons per acre and in no event shall exceed 150 persons per acre. New projects will not exceed 200 units and will not be situated adjacent to other family projects.

2. Density at existing family high rise projects will be reduced from current design levels to no more than 150 person per acre. This will be accomplished through demolition of existing structures, with possible replacement of high rise buildings by lower density low-rise buildings, preferably townhouses, to service families with children.

3. Existing family high rise projects will be reduced from their current size to no more than 700 units per project, with all units occupied by households with children being no more than three levels above grade so as not to require elevator access.

4. Where feasible, family high rise buildings will be converted to house childless households on the upper floors or on all floors. Where not feasible, or where a building is not needed to fulfill the Master Plan goal and the land on which it is situated is needed for new housing, the building is to be demolished.

5. Physical anti crime measures will be provided at all existing and new projects. Specific improvements are dependent on the building and unit types and may include consolidation of entries, establishment of private entrances and yards, strategic placement of public space and Authority management offices to provide surveillance, fencing, site lighting and installation of security systems.

6. Wherever feasible, elderly efficiency apartments are to be merged with adjacent units to create one- and two bedroom units.

4.3 Meeting The Goal Quantitatively

Whereas the previous section defined qualitative means for meeting the goal of providing adequate housing, this section identifies specific options for providing sufficient amounts of appropriate housing for all current tenants in good standing. The options are as follows:

1. Minor Rehabilitation is applicable to those projects that require from \$1,000 to \$10,000 per dwelling unit to bring the units, buildings, grounds and systems up to current HUD standards and state code requirements. A Physical Needs Assessment conducted by The Ehrenkrantz Group indicates that six elderly projects and two townhouse projects can be modernized for under \$10,000 per dwelling unit. All other projects require more.

2. Major Rehabilitation is applicable to those projects that require over \$10,000 per dwelling unit to bring the units, buildings, grounds and systems up to current HUD standards and New Jersey code requirements. Major rehabilitation, without reconfiguration, is considered only at projects that provide sound living environments for their current tenants. Major rehabilitation of family high rises with the exception of Stella Wright (NJ 2-15) is, therefore, rejected.

3. Reconfiguration is applicable to buildings where current unit sizes are inappropriate for the current and/or prospective tenants and where the current configuration can be modified to provide relocation housing for inappropriately housed tenants. This option calls for

a) Conversion of elevator-accessed large family units to smaller all-adult units at lower overall densities for households without children.

3) Conversion of the lower floors of high-rise buildings to walk-up flats and/or duplexes for households with children.

4) Merger of small garden apartment units (presently, one bedroom) to form larger units for families with children currently residing in elevator-accessed units.

d) Conversion of efficiency units in elderly projects to one and two-bedroom units.

4. Consolidation of occupancy into fewer buildings in order to fully vacate some buildings which can then be sealed and closed. This option is a temporary action intended to reduce the cost of providing utilities, maintenance and security at high vacancy projects.

5. Demolition is considered where the cost of appropriate housing that meets HUD and code requirements exceeds HUD's allowable modernization costs, where current density is too high to provide appropriate housing; and where units designated for demolition are not needed to accommodate current tenants in good standing.

6. Housing Production (new housing) is applicable at those projects where building coverage of the site is low, or where following demolition, more coverage is desirable in order to effect site control. The units must also be needed to fulfill the Master Plan goal.

7. Disposition is considered feasible where the net proceeds of sale are sufficient to provide a comparable volume of usable housing elsewhere. Recent discussions with prospective buyers suggest that disposition is not currently a viable option at any project.

SELECTED OPTIONS

		MINOR REPAIRS	MAJOR REPAIRS	RENOVATE	DISPOSE	CONVERT
FAMILY LOW-RISE PROJECTS						
NJ 2-1	Seth Boyden Court	-	-	X		
NJ 2-2	Penningson Court	-	-	X		
NJ 2-3	Baxter Terrace	-	-	X		
NJ 2-4	Wyatt Court	-	-	X		
NJ 2-5	Edna Ford Court	-	-	X		
NJ 2-6	Roosevelt House	-	-	X		
NJ 2-14	Bradley Court	-	-	X		
FAMILY TOWNHOUSES						
NJ 2-6	Stephen Crane	-	-	X		
NJ 2-20	Bradley Court II	X	-	-		
NJ 2-27	No Name	X	-	-		
FAMILY LOW/HIGH RISE PROJECTS						
NJ 2-10	Worcester House	-	-	X		
NJ 2-11	Walsh House	-	-	X		
FAMILY HIGH-RISE PROJECTS						
NJ 2-12	Hayes House	-	-	X		
NJ 2-13	Columbus House	-	-	X		
NJ 2-15	Stella Wright	-	-	X		
NJ 2-17	Scudder House	-	-	X		
ELDERLY HIGH RISE PROJECTS						
NJ 2-16	Stephen Crane Bldg.	-	X	X		
NJ 2-17	Kerrinnet H. Leroy	-	X	X		
NJ 2-18	Hayes Bldg.	-	X	X		
NJ 2-19	Scudder Elderly	-	X	X		
NJ 2-21	Seth Boyden Bldg.	-	X	X		
NJ 2-22	Seth Boyden Bldg.	-	X	X		
NJ 2-23	Scudder Elderly	-	X	X		
NJ 2-24	Stephen Crane Bldg.	-	X	X		
NJ 2-25	Scudder Elderly	-	X	X		
NJ 2-26	Scudder Elderly	-	X	X		
NJ 2-27	Scudder Elderly	-	X	X		
NJ 2-28	Scudder Elderly	-	X	X		
NJ 2-29	Scudder Elderly	-	X	X		
NJ 2-30	Scudder Elderly	-	X	X		
NJ 2-31	Scudder Elderly	-	X	X		
NJ 2-32	Scudder Elderly	-	X	X		
NJ 2-33	Scudder Elderly	-	X	X		
NJ 2-34	Scudder Elderly	-	X	X		
NJ 2-35	Scudder Elderly	-	X	X		
NJ 2-36	Scudder Elderly	-	X	X		
NJ 2-37	Scudder Elderly	-	X	X		
NJ 2-38	Scudder Elderly	-	X	X		
NJ 2-39	Scudder Elderly	-	X	X		
NJ 2-40	Scudder Elderly	-	X	X		
NJ 2-41	Scudder Elderly	-	X	X		
NJ 2-42	Scudder Elderly	-	X	X		
NJ 2-43	Scudder Elderly	-	X	X		
NJ 2-44	Scudder Elderly	-	X	X		
NJ 2-45	Scudder Elderly	-	X	X		
NJ 2-46	Scudder Elderly	-	X	X		
NJ 2-47	Scudder Elderly	-	X	X		
NJ 2-48	Scudder Elderly	-	X	X		
NJ 2-49	Scudder Elderly	-	X	X		
NJ 2-50	Scudder Elderly	-	X	X		
NJ 2-51	Scudder Elderly	-	X	X		
NJ 2-52	Scudder Elderly	-	X	X		
NJ 2-53	Scudder Elderly	-	X	X		
NJ 2-54	Scudder Elderly	-	X	X		
NJ 2-55	Scudder Elderly	-	X	X		
NJ 2-56	Scudder Elderly	-	X	X		
NJ 2-57	Scudder Elderly	-	X	X		
NJ 2-58	Scudder Elderly	-	X	X		
NJ 2-59	Scudder Elderly	-	X	X		
NJ 2-60	Scudder Elderly	-	X	X		
NJ 2-61	Scudder Elderly	-	X	X		
NJ 2-62	Scudder Elderly	-	X	X		
NJ 2-63	Scudder Elderly	-	X	X		
NJ 2-64	Scudder Elderly	-	X	X		
NJ 2-65	Scudder Elderly	-	X	X		
NJ 2-66	Scudder Elderly	-	X	X		
NJ 2-67	Scudder Elderly	-	X	X		
NJ 2-68	Scudder Elderly	-	X	X		
NJ 2-69	Scudder Elderly	-	X	X		
NJ 2-70	Scudder Elderly	-	X	X		
NJ 2-71	Scudder Elderly	-	X	X		
NJ 2-72	Scudder Elderly	-	X	X		
NJ 2-73	Scudder Elderly	-	X	X		
NJ 2-74	Scudder Elderly	-	X	X		
NJ 2-75	Scudder Elderly	-	X	X		
NJ 2-76	Scudder Elderly	-	X	X		
NJ 2-77	Scudder Elderly	-	X	X		
NJ 2-78	Scudder Elderly	-	X	X		
NJ 2-79	Scudder Elderly	-	X	X		
NJ 2-80	Scudder Elderly	-	X	X		
NJ 2-81	Scudder Elderly	-	X	X		
NJ 2-82	Scudder Elderly	-	X	X		
NJ 2-83	Scudder Elderly	-	X	X		
NJ 2-84	Scudder Elderly	-	X	X		
NJ 2-85	Scudder Elderly	-	X	X		
NJ 2-86	Scudder Elderly	-	X	X		
NJ 2-87	Scudder Elderly	-	X	X		
NJ 2-88	Scudder Elderly	-	X	X		
NJ 2-89	Scudder Elderly	-	X	X		
NJ 2-90	Scudder Elderly	-	X	X		
NJ 2-91	Scudder Elderly	-	X	X		
NJ 2-92	Scudder Elderly	-	X	X		
NJ 2-93	Scudder Elderly	-	X	X		
NJ 2-94	Scudder Elderly	-	X	X		
NJ 2-95	Scudder Elderly	-	X	X		
NJ 2-96	Scudder Elderly	-	X	X		
NJ 2-97	Scudder Elderly	-	X	X		
NJ 2-98	Scudder Elderly	-	X	X		
NJ 2-99	Scudder Elderly	-	X	X		
NJ 2-100	Scudder Elderly	-	X	X		

One or more of the above options which conform to the design decisions established in Section 4.2 are assigned to each project. Conversely, options are rejected that fail to conform to the design decisions. For example, neither demolition of low-rise nor elderly housing is considered.

Options are not mutually exclusive. Several may be used in combination within a project. Some units may be rehabilitated while others are reconfigured. Partial demolition may be combined with new housing. Table 5 shows that the options considered at each project type are fairly consistent.

Low-rise family projects are rehabilitated and reconfigured to provide large units for families with children and to reduce the number of one-bedroom units. Density and lot coverage at these projects preclude additional housing production. The only low rise projects that are not at least partially reconfigured are Bradley Court II (NJ 2 20) and NJ 2 27. The high-rise projects for the elderly are rehabilitated and reconfigured to reduce the number of efficiency units. No other option is reasonable in the context of the Authority's design decisions.

Viable options at the family high rise projects are more numerous. These projects do not provide appropriate living environments for large families with children, nor could they accommodate smaller, all-adult households as currently configured. Many of the apartment sizes exceed the needs of all-adult households. Demolition (partial or total) must, therefore, be considered if the units are not needed to fulfill the goal. At five of the six projects (Stella Wright is the exception), density is extremely high but building coverage is very low, leaving vast unused open

areas in the midst of these projects. Infill housing (Housing Production) is, therefore, a viable option to improve site control, where density is reduced through partial demolition. Consolidation has been effected at both Columbus Homes and Walsh Homes, but not at Stella Wright where vacancy is low. At Kretchmer, Hayes and Scudder, vacancy is high, however, and consolidation is a viable interim option.

Reconfiguration of family high rises to house families with children in walk-up and duplex units on the lower floors and childless households in elevator accessed units on the upper floors is a viable option at all six family high rise projects.

The table on the preceding page summarizes the options considered at each of the Authority's projects. Section 5.0 discusses the process by which these options have been further limited by detailed proposals.

Quantitative analysis of the primary goals of the plan begins with a comparison of the number of required and available units.

1. To determine the requirement for housing generated by current tenants, the composition of all 8,450 households was analyzed using the following assumptions:

- a. The head of household and spouse, if any, would share one bedroom.
- b. Additional household members of the same sex would share one bedroom (2 per bedroom) regardless of age.
- c. No household would be split except where more than two generations live together and/or exceptionally large units would be required to meet b. above.

d. Households more than six months in arrears would be evicted.

2. To determine the availability of appropriate units for these households, the following assumptions were made:

a. One- and two-bedroom units in high-rise family projects could be occupied by childless households but larger units in family high-rise buildings could not since they contained more bedrooms than childless households required.

b. Large elevator-accessed units were inappropriate for families with children and so, for the purpose of determining the availability of appropriate housing, these units were assumed not to exist.

c. Since efficiency units for the elderly had been difficult to market, showing a vacancy rate of over 36%, these units were assumed to not exist.

The results of the analysis, presented in Table 6, indicate the following:

1. The Authority has a surplus of one- and two-bedroom units for non-elderly households with and without children. There is a shortfall of 800 one-bedroom units for the elderly, (brought about by the assumption that efficiencies are too small to provide appropriate housing) but this shortfall could be readily made up by using some of the surplus "all adult" units to house the elderly and merging some efficiency units to create one-bedroom units at elderly projects.

2. A shortfall exists of over 1,500 three- to five-bedroom units for households with children.

The central physical planning problem is as follows: Find the best combination of viable development options at existing public housing projects (Table 5) to fulfill the requirement for appropriate housing generated by current tenants in good standing (Table 6).

The need for large family units is simply too great to be met through any combination of development options that utilizes existing housing exclusively. Construction of new housing for large families with children is essential to achieve the Authority's goal and objectives. Starting with the least costly way of creating these needed units (on a per unit basis) and proceeding to the most costly, the process consists of five steps:

1. Move elderly households currently residing in low rise projects to projects for the elderly, in order to free up space at low-rise projects.

2. Create as many large family units as possible at low rise projects through merger of unneeded smaller units, within density limits stated in Section 4.2.

3. Reconfigure family high rises to provide large family walkup or duplex townhouses on the lower floors.

4. Build infill townhouses for large households at high rise sites, with density limits stated in Section 4.2.

5. Evaluate the remaining requirements for large family units and meet this requirement by constructing townhouses at scattered sites.

Unfortunately, these five steps cannot be performed sequentially. Limitations on relocation resources preclude steps 2 and 3 from being performed at significant

levels before some infill and scattered site housing (steps 4 and 5) have been constructed.

Implementation of a plan to fulfill the Authority's goal will be constrained by two major factors, namely:

1. Previously approved funds will have to be expended at the projects for which they were approved.

2. To house all current tenants in good standing throughout the development period, no component of the plan that requires a tenant to move from his/her current dwelling unit can be implemented unless another unit of appropriate size (and where possible, appropriate type) is available.

The second constraint, which revealed a problem of considerable complexity, led to the development of a computer model to facilitate evaluation of combinations of alternative project proposals.

To run the model, the user defined a plan by selecting a non mutually exclusive set of project options from Table 5. Each option was then described in terms of

- The number, sizes and types of displaced households in order to implement the option.

- The proposed start and completion date for construction.

- Construction cost.

- The number, sizes and types of housing units created as a result of implementing the option.

The model then analyzed the full set of options, determining the resulting relocation level and cost month by month throughout a five year period for the Authority as a whole.

Plans were then evaluated in terms of cost, time to complete and relocation level. Unfortunately, these criteria were conflicting. The faster the plan was implemented, the lower its cost but the higher its relocation level.

Only after extensive testing was a plan found that did not permanently dislocate some tenants from public housing. By adjusting schedules and housing mixes, an acceptable set of options was found. It provided a relocation unit of appropriate size and type for every current tenant in good standing, fulfilled the goal of the Master Plan in five years, and could be built for 81% of the amount needed to implement the Base Case.

A sufficient number of analyses were performed to suggest that further refinement would result in only minor adjustments to the proposed schedule and program and would yield only minor improvements.

5.0 PROJECT PLANS

5.1 Family Low Rises

Family low rises in Newark, a preferred building type for rearing children, contain 891 one bedroom units which are too small to house families with children. To rectify this, reconfiguration of small units is proposed. The proposed mix of housing at each family low-rise is presented in Table 10.

Schematic design has been completed by consultants for Baxter Terrace (NJ 2-5) and is nearing completion at the Seth Boyden Court (NJ 2-1) and Kretchmer (NJ 2-10) low rises. The similarity of the approach taken by separate architects (Mario Schack and Wallace, Roberts, Todd) suggests that a similar approach is likely to apply to low rises at other projects.

The designs for Baxter and Boyden create large units by converting smaller flats on the first and second floors into larger flats and duplex units, each with direct private access at grade. The third floors are reconfigured into gallery accessed flats. The gallery, a hallway extending along one building wall (either indoor or outdoor), is incorporated into the design as a means to meet current building code requirements. Access to third floor units is by common stairways which service only the third floor.

Third floor flats are reconfigured primarily to two bedroom units for small families, whereas the first and second floor units are three, four and five



BEFORE MERGER 2 one bedroom apartments
1 two-bedroom apartment



AFTER MERGER: 2 three bedroom apartments

bedroom units for larger families, thereby limiting the need for most children to use public galleries and stairways.

The first floor units are to have private front yards. Semi-private courts are to be provided where appropriate, and access is to be limited to units facing them. These measures will provide a less abrupt transition from public to private space than exists currently. They are intended to heighten tenants' pride in their housing, improve security and reduce maintenance requirements.

Some proposed functional improvements will also improve the appearance of the low rises and soften their institutional image.

Chief among these are replacement of the rotting steel basement windows with energy efficient ones, removal of parapets, and the replacement of the flat roofs with insulated sloping roofs, which will better protect the walls, be more vandal resistant and less costly to maintain. These roofs are also more typical of private low-rise housing and reduce the apparent height of the buildings.

The number and sizes of buildings at the low rise projects will remain the same, but the number of units will be reduced from 2,603 to 2,261 because of recon-figuration of smaller units to larger ones.

Baxter Terrace (NJ 2-5) is the only low rise project for which Comprehensive Modernization construction funding is currently available.

The 49 year old project consists entirely of flats which are clustered about common stairway landings.

The floor plans are nearly identical for each floor of each building, that is, if a two bedroom apartment is situated on the first floor, identical units are situated directly above it on the second and third floors. These elements of design posed two problems.

1. The 1984 Building Code requires that two means of egress be supplied to second and third story units using common stairways above grade. The project cannot be modernized without conforming with this expensive requirement.



Typical low rise courtyard and common entry.

Large units are needed at the project to serve current households with children, and these units can best be situated at ground level, where private entrances and yards can be provided. Smaller units (two bedroom and some one bedroom units) are also called for, but they have less need for private access and yards than larger units.

The unit distribution in the schematic design plans for Baxter Terrace, prepared by consultants, Mario Schack, FAIA, and The Delta Group, meets the criteria. (See Table 7) but at a higher cost than initially anticipated. Much of the increase is attributable to building code requirements.

5.2 Family High-Rises

The 5,896 family high-rise units situated within 46 buildings at six projects constitute the core of the problems confronting public housing in Newark. The unsuitability of elevator serviced units for families with children, combined with the goal of providing appropriate housing for all current tenants in good standing, translates into a deficit in family units, a surplus of all adult units and an enormous cost for reconfiguration. The Master Plan, therefore, calls for a combination of actions to best utilize the Authority's physical and financial resources. These include reconfiguration of entire buildings or upper floors (fourth floor and above) into exclusively one and two bedroom units for occupancy by the elderly and other households without children. Where feasible, the lower floors would be reconfigured into larger units for family occupancy. The lower floor family units would have completely separate access from the upper floor units



EXISTING



PROPOSED

Lower floors are converted to two story (duplex) units having private entrance and yards. Pitched roofs replace flat ones, which are security and maintenance problems. Facades are enlivened and rusting casement windows, a hallmark of public housing are replaced with thermally efficient ones.

and to allow for access. Some of grade family units will have direct private access and private yards. At first projects, some buildings would be demolished to reduce density and to make land available for needed new low rise units.

Full or partial demolition of buildings would also allow redesign of the sites to eliminate the inward oriented super blocks by re-introducing streets, thus establishing the projects as part of the city fabric.

All told, the six family high rise projects, upon completion, would contain 3,347 units. This compares to the current mix at the six family high rise sites of 6.8 family high rise units, 165 family low rise units and the 252 elderly units at Scudder Homes.

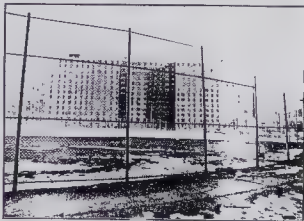
The reduction in scale and density, the limiting of elevator accessed units to adults and the introduction of new townhouses will reduce the opportunities for violent crime and vandalism. Surveillance will be simplified by substantial reductions in the miles of corridors and stairwells and the numerous common entryways. The breaking up of much of the large unused open areas into private yards should also improve security. The reduction of crime and the fear of crime at these projects will benefit both public housing residents and residents of surrounding neighborhoods, including nearby family low rise and elderly public housing projects, where high vacancy rates are attributed largely to the high crime rates of the neighborhood.

Detailed architectural studies are in progress for the Kretschmer Homes (NJ 2-10), Hayes Homes (NJ 2-12) and Scudder Homes (NJ 2-14) family high rise projects. Similar studies are to be initiated shortly for Wainwright

Homes (NJ 2-10) and Commons Homes (NJ 2-11). These projects, once begun, and Hayes are in the final major construction.

5.2.1 Scudder Homes (NJ 2-14)

Scudder Homes, which contains 1,674 family units in seven 13 story family buildings and one 11 story elderly building, is the largest public housing project in New Jersey. First occupied in December 1962, the project contains 12.9% of all public housing units in the city. Built at a density of 95.1 units per acre, it contains 28.7% of all Newark's four-to-six bedroom public housing units, and 38.2% of all five bedroom units.



Scudder Homes Courtyard

Extreme intensity of use during its 21 years of life has worn the project down to the extent that any amenity which once may have existed is now gone.

Souther Homes' buildings are massive wall like structures, each 350 feet long. Demolition of portions of the project has long been considered as a means to salvage the remainder. Only the elderly building (Building No. 6) has retained viability, and recently, the grounds and public spaces of this building were modernized.

The residential building consists of two high rise, semi detached structures designed as mirror images and connected by a solid masonry wall. No connection is even possible without major alterations because the hallways do not extend to the party walls. (The first two floors of the elderly building are now connected at a new lobby and centralized entrance.) Each family building has four entrances, two for each building half. All but Buildings 2 and 3 are oriented toward bordering streets. One tiny skip stop elevator is located at each entrance, complicating security measures.

Five family buildings (1, 4, 5, 7 & 8) are presently 35% occupied, housing only 499 families. Buildings 2 and 3 have been vacated and sealed, with the first two floors pulled to the columns. Building 8 is being vacated, to be followed by another building later in 1985, in preparation for the massive capital improvement program.

The present site plan at Souther Homes presents formidable problems for housing families with children. Although the vast, unused open area at the interior of the Souther site could be controlled by creating



EXISTING



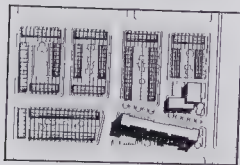
PROPOSED

Salvaged high rise buildings are deinstitutionalized, and elevator accessed units are converted to housing for childless households.

EXISTING



PROPOSED



Overpowering institutional structures in high density super blocks are replaced with lower density housing built at human scale. The units face residential streets, as does most private housing in Newark.

Interior streets lined with townhouses, these small scale structures would be dominated and heavily shaded by the monstrous high-rises. Moreover, failure to use the interior of the site would mean forfeiting control of this asphalt wasteland.

Architectural studies conducted by Geddes, Brecher, Qualls, Cunningham show that 16 to 30 family units could be created in each building by reconfiguring the lower three floors into flats or combinations of flats and duplexes. The upper stories could be converted into elevator accessed one and two bedroom units for occupancy by childless households.

The Scudder buildings least lend themselves to reconfiguration of any in Newark's public housing stock because they are very narrow and have irregularly spaced columns along both sides of four foot wide double ended corridors. Reconfiguration would, therefore, be less satisfactory and more costly than at Hayes Homes (NJ 2 12), the other funded family high rise project. Superior site layouts at other family high rise projects make them better candidates for reconfiguration than Scudder. Moreover, fewer large family units would be created on the lower three floors of all existing family buildings than could be placed on the land if the high-rises were demolished.

The architect prepared alternate plans that left zero through seven buildings standing. Each scenario was then evaluated in terms of the improvements to the site plan, the mix of housing units, the cost per dwelling unit and total project cost. Rehabilitation of existing units was determined to cost slightly less than the construction of new ones on "reclaimed" land (largely due to the cost of demolition of the high rises). The more buildings demolished and replaced with new

townhouses, the higher the cost per unit built or modernized, but the lower the total project cost. This was due to the progressive reduction in the number of units and project density with each plan, and demolition. The lowest total cost would result from demolishing all seven family buildings (1,400 units) and replacing them with 150 large family townhouses along with all site work, utilities and rehabilitation of the community center, at an estimated cost of \$19.0 million. Retention of one building for conversion to all-adult use, however, is incorporated into the Master Plan for the purpose of meeting the needs of tenants without children. This proposal provides for 100 all adult units, which is more than sufficient to meet the needs of current tenants, and 30 two bedroom walk up family units on the first three floors.

The alternate site plans show new streets penetrating the site, re-establishing its former relationship with the surrounding neighborhood. Townhouses are shown to line the street frontages on all plans and parking is shown at the street in front of the houses. Each row unit would have a private entrance and front and rear yards. Common areas are drastically reduced.

HHA's current policy is to encourage the transfer of housing production funds to modernization use rather than the reverse. To gain approval of the proposals for Scudder Homes, steps have been taken to obtain a waiver of this policy.

5.2.2 Hayes Homes (N.J. 2 12)

Hayes Homes contains 1,457 dwelling units in ten 12-story family high rise buildings. Built in 1954 at a density of 76 units per acre, the project has deteriorated considerably over the years. Much said of Scudder in Section 5.2.1 applies at Hayes. Densities are

slightly lower at Hayes, both in terms of number of units per acre and in average unit size. Hayes is eight years older, but far less per unit has been spent there on capital improvements than at Scudder. Though not ideal, the internal layout of the Hayes buildings is superior to that at Scudder for reconfiguration to all adult use. The Hayes buildings, however, are sited awkwardly, with a wastes open space. They face neither the street nor the interior courts.

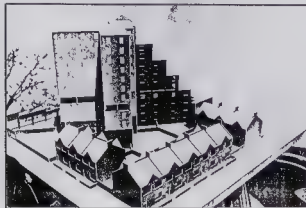
The first phase program for Hayes prepared by architectural consultant Gregory Crozier, AIA, of Crozier Philippi Associates, calls for partial demolition and partial reconfiguration, resulting in about 350 all-adult elevator serviced units and family walk up units. Approximately 233 new townhouse units are proposed for areas occupied by structures to be demolished and the large central open space, which is presently little used. Funding exists for about 118 units, of which 58 are reconfigured and 60 are new.



Free standing family high rises on a large tract of vacant land



Existing Hayes family high rise building



Model of partially demolished Hayes building and new

At Scudder, the consultant's site plan proposal reestablishes the street pattern within the blocks to fit the urban fabric. The new construction is to be physically integrated with reconfigured buildings, and will face the new street frontages. Parking is placed at the front of the townhouses, and the large common parking lots are eliminated.

The ability of the Authority to implement this plan, as with Scudder's, is contingent upon a HUD waiver allowing utilization of modernization funds for new housing.

5.3 New Housing Production

Townhouses having private entrances and yards are considered the most appropriate housing type for families requiring three or more bedrooms. Even with reconfiguration of low rises and the lower floors of high rises, approximately 1,326 new townhouse units must be built to meet the Master Plan's basic goal.

The status of new housing production called for under the Master Plan is as follows:

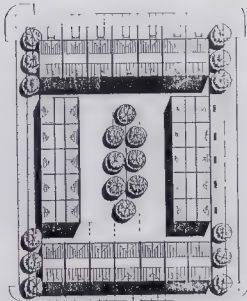
In early 1985, 437 new townhouses are to be in construction, and if HUD allows the use of modernization funds for new construction at Hayes and Scudder, an additional 198 could be started late in 1985. Moreover, the Authority has requested funding for 200 more units. If approved, a total of 835 new units, or 72% of the goal, could be built during the first half of the implementation program.

Early construction of these units is essential to meeting the goal within the five-year time frame. Failure to meet the relocation needs for large families would result in the delay of the family buy-in modernization program day for day.

The new townhouse projects contain fewer than 200 units, each one having many fewer units than the high rises which they are intended to replace. The typical site is small, only one square block bordered by streets on all sides. Townhouses (usually five to fifteen in a row) line the streets frontages, and the end units of neighboring rows are connected by masonry walls. This plan secures the centers of the blocks, which are mostly or entirely divided into private rear yards. Where common open space is provided at the interior of a block, its use is limited to the residents of the block. Where a block is excessively long, a row driveway or street is cut through. Parking is typically provided at the fronts of the units. The objective of the townhouse planning approach is to create new housing which fits unobtrusively into the urban fabric while offering the residents adequate privacy and security.



New family housing provides individual entrances to each unit, private yards and individual utility services, thus enhancing the tenants' sense of stewardship.



Townhouses have private front and rear yards. When semi-private courts are provided, they are completely surrounded by housing and have only one or two entry points, this maximizes resident control of the interior of site.



High-rise flats are replaced by townhouses designed to accommodate large families with children, thereby providing a living environment comparable to other contemporary family housing in Newark.

The status of new housing production called for under the Master Plan is as follows:

Project No.	Location	No. of Units	Status
NJ 2-31	Thomson's/Clinton	61	Under construction
NJ 2-29	Woodland Avenue	47	Out for Bid
NJ 2-30	Parcel 35A	50	"
NJ 2-35	West Side	95	"
NJ 2-36/37	Broadway	184	"
NJ 2-12	Hayes	48	First Phase Schematics
NJ 2-19	Scruder	150	" " "
New Housing Unspecified		591	Planning

Total 1,326

Of major concern has been HUD's official opposition to new public housing and the extremely tight budgets and design limitations imposed on its production. Newark, an old city, is densely built up. Land is subdivided into small parcels in multiple ownership, and many are occupied by derelict wooden buildings. The costs for acquisition, demolition, site preparation, utilities, streets, sidewalks, fencing, landscaping and outdoor lighting far exceed the amounts currently allocated by HUD for new housing. In the past urban renewal or the city absorbed many of these costs. Renewal land and funds are near exhaustion, and the city can ill afford to bear the brunt of these costs. The city's efforts are aimed at increasing employment opportunities and strengthening its weakened tax base. It cannot be expected to devote a major share of its meager resources to public housing which already draws so heavily on city and school services.

Since most of the land required for new townhouses is at the family high rise sites where both modernization and housing production are proposed, it is recommended that the following funding distribution be assigned by HUD:

1. Modernization (Comprehensive Improvement Assistance Program)
 - a. Project Master Plan.
 - b. Redesign, reconfiguration, and renovation of existing buildings.
 - c. Building and site demolition work.
 - d. Site preparation.
 - e. Infrastructure design and construction including
 - Site utility lines
 - Drainage facilities
 - Streets, drives, walks, common parking areas, site lighting.
 - Common open space, outdoor recreation
 - Fences, walls, common security facilities
2. Housing Production
 - a. New residential buildings.
 - b. New buildings designated for indoor recreation, office or other common facilities

- c. Yard space and facilities assigned to individual residential units

5.4 Elderly High Rises

The major problems at the elderly projects are crime, the unpopularity of efficiency units and high vacancy levels. The last factor is closely related to the first two. In addition, competition is strong from other newer subsidized projects in Newark and nearby.

Elderly high-rise public housing projects in Newark contain 3,153 dwelling units, of which 968 (31%) are efficiencies (0 bedroom). These tiny units are viewed as undesirable to both existing and prospective tenants often because their furniture is not adaptable to them. Most cannot afford and few would want new furniture, since existing personal property is frequently the tenants' main tie with their past. The Master Plan therefore, calls for reconfiguration, where feasible, of efficiency units into one- and two bedroom units.

Crime at elderly projects is primarily external, as opposed to family projects where crime originates both internally and externally. Tight perimeter security measures and controlled centralized lobbies, therefore, are especially protective at the elderly projects. These improvements were incorporated at the Scudder elderly building with considerable success. They are also being planned for the Baxter and Kretschmer Gaydon elderlies. Although crime and its attendant fear can be reduced within a project through the implementation of these measures, they are not effective beyond the project fence. The anti crime efforts recommended for nearby family projects, therefore, are likely to benefit the elderly projects as well.



Elderly
High-rise
Cluster



building (center) amid family high rises

Extensive improvements are being designed for the Baxter complex. They include the provision of increased recreation facilities for the young at 841 and a new convenient pedestrian way which will increase the use of the elderly project site as a shopping center. Other efforts to improve security for the elderly by both direct and indirect methods are also under consideration for the Seth Boyden/Kretschmer complex.

Each of the 12 story buildings at the Liberty's elderly projects (NJ 2 16, 17 & 18) is serviced by two skip-stop elevators, one with access only to the odd-numbered floors and the other to the first floor and the even-numbered floors. When an elevator is out of service, there is no back up for emergencies and the neighborhood. The plan, therefore, calls for full elevator service and related lobby improvements at these projects.



Entrances of buildings for the elderly are consolidated by zoning. This allows consolidation of entrances to the project and safe outdoor sitting areas.

6.0 CAPITAL COSTS

Though some improvements proposed in the Master Plan are not fully designed, capital costs can still be accurately estimated. Even if the tentative proposals for these components are later modified, costs attributable to those modifications are not likely to exceed three percent of the cost of the entire plan.

Furthermore, modification of current proposals will have negligible impact on total cost, because costs for the reconfiguration of family high rise buildings are approximately the same as those for constructing new townhouses. The major cost differences between family high rise reconfiguration and its replacement with new housing are in demolition and site preparation.

To develop the Master Plan cost estimate, the following data were used

1. Production costs for future housing were based upon recently awarded contracts for the construction of townhouses.
2. Reconfiguration costs to create larger units at low rises and elderly projects and to create smaller unit units on the upper floors of family high rises were based upon the consulting architects' estimates for schematic designs at the Baxter complex (NJ 25 and 2 22B) and Scudder Homes (NJ 2 19).
3. Rehabilitation without reconfiguration costs were derived from the Base Case cost data prepared by The Hertz Group.

4. Costs for upgrading mechanical and electrical systems were derived from Base Case unit cost data and applied to the proposed mix of dwelling units at each project.

These data were used to create a cost model to estimate the cost of each component of the Master Plan. Comparison of costs generated by the model and "known" costs (those for components recently bid or professionally estimated) were sufficiently close (+ 5%) to allow confidence in the model's estimates for as yet undesignated components of the Master Plan.

The cost in 1984 dollars to implement the plan, including design fees and administration of design and construction, is estimated to be \$299 million, of which \$83 million is for reconfiguring and modernizing family low-rise projects; \$49 million is for existing and new townhouses; \$12 million is for modernization of elderly projects; and \$155 million is for reconfiguring, modernizing and new construction at family high rise projects. See Table 2.

Since most of the land required for new townhouses is at the family high rise sites where both modernization and housing production are proposed, it is recommended that the following funding distribution be assigned by HUD.

1. CIAP

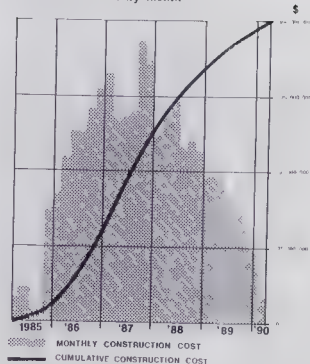
- a. Project Master Plan.
- b. Redesign, reconfiguration, and renovation of existing buildings.
- c. Building and site demolition work.

- d. Site preparation.
- e. Infrastructure design and construction including:
 - Site utility lines
 - Drainage facilities
 - Streets, drives, walks, common parking areas, site lighting.
 - Common open space, outdoor recreation
 - Fences, walls, common security facilities

2. NEW CONSTRUCTION

- a. New residential buildings.
- b. New buildings designated for indoor recreation, office or other common facilities.
- c. Yard space and facilities assigned to individual residential units.

Construction Cost By Month



CONSTRUCTION SCHEDULE

[illegible]

7

Kretchmer-Hayden complex. Selection of architects and in process for Columbus Homes and Walsh Homes and for selected improvements at the low rises.

By mid 1985, sufficient on-site and off-site relocation units are to be made available to start work on reconfiguration of Baxter Terrace (NJ 2 5). Baxter is the largest low rise at which to start since the project is partially funded, and the proposed reconfiguration yields a high net gain in large units (three to five bedrooms), which are the most needed.

Current funding is sufficient to complete only one-half of the proposed modernization at Baxter and one-fifth of the proposed Hayes program. The \$19 million available at Scudder is sufficient to complete all modernization work and all or most of the new housing proposed for the site.

By the end of 1986 (month 28 of the five-year period), the currently funded scattered site new housing as well as the first phases of Baxter, Hayes, Scudder, Columbus and Walsh are scheduled to be completed. If the schedule can be met to this point, the relocation problem will have been solved.

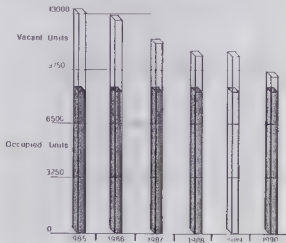
The year 1987 concentrates on completing the second phases of Baxter and Hayes to be completed by mid-1988.

The reconfiguration of Kretchmer Homes (NJ 2 10) is to begin in mid 1987 and completed by early 1989. The remaining high rise buildings at Scudder are to be vacated and demolished at the end of the program.

To keep the Master Plan on schedule, conversion of a portion of the modernization funds allocated to Scudder Homes (NJ 2 19) and Hayes Homes (NJ 2 12) to housing production use is essential. Another high

priority is completion of the redesign of Columbus Homes (NJ 2 13) and Walsh Homes (NJ 2 12), both of which are scheduled to enter the construction phase within the year, but neither of which has been funded.

The above are those components of the schedule that generate relocation needs and provide new or fully modernized housing to meet those needs. Throughout development, other less problematic projects (in terms of relocation) are also modernized. If this Master Plan is followed, by September, 1989, all projects will have been rehabilitated, reconfigured or replaced and the Authority's goal fulfilled.



Total number of units decline during plan implementation, but occupancy levels remain constant.

A P P E N D I X

- Table 1 Existing housing mix by project, project type, unit type and bedroom count
- Table 2 Master plan and Base Case costs by project, project type and cost per unit.
- Table 3 Existing housing density by project, project type and by bedroom count, secondary bedroom count and people per acre.
- Table 4 Need for and supply of housing by current tenants, by project, project type, unit type and bedroom count.
- Table 5 Proposed housing mix by project, project type, unit type and bedroom count.
- Table 6 Current Implementation Program

Table 1 Existing housing mix by project, project type, unit type and bedroom count.

PROJECT LOW RISE	ACRES	--- FAMILY ---					--- FAMILY ---					TOWNHOUSES					FAMILY				TOTAL UNITS
		1-BR	2-BR	3-BR	4-BR	5-BR	1-BR	2-BR	3-BR	4-BR	5-BR	1 BR	2 BR	3 BR	4 BR	5 BR	1 BR	2 BR	3 BR	4 BR	
Ac 1 - 5000 UNITS	5.1	78	78	35																	
Ac 2 - 1000 UNITS	4.4	66	19	23																	
Ac 3 - 1000 UNITS	1.87	165	296	97																	73
Ac 4 - 1000 UNITS	2.5	12	166	89																	24
Ac 5 - 1000 UNITS	6.73	78	156	71																	568
Ac 6 - 1000 UNITS	1.52	100	107	64																	401
Ac 7 - 1000 UNITS	5.71	45	181	75																	273
	78.58	750	1303	538	15																304
FAMILY TOWNHOUSES																					
Ac 8 - 1000 UNITS	8.26																				2683
Ac 9 - 1000 UNITS	5.53											136	147	71							334
Ac 10 - 1000 UNITS	5.83												12	12							24
	21.68											136	159	141	33	12					103
FAMILY LOW-RISE PROJECTS																					
Ac 11 - 1000 UNITS	14.83	51	51				27	283	258	56	2										481
Ac 12 - 1000 UNITS	14.83	3	15	36	6	3	72	215	195	72	9										730
	29.66	54	66	36	6	3	101	498	456	128	11										623
FAMILY HIGH-RISE PROJECTS																					
Ac 13 - 1000 UNITS	15.15						151	873	334	29	10										1259
Ac 14 - 1000 UNITS	4.68						96	781	362	75	128										1457
Ac 15 - 1000 UNITS	14.15						144	687	321	79	53										1454
Ac 16 - 1000 UNITS	13.48						154	724	325	154	63										1204
	61.35						585	3085	1342	337	248										1422
FAMILY HIGH-RISE PROJECTS																					
Ac 17 - 1000 UNITS	1.97																				5537
Ac 18 - 1000 UNITS	1.58																				
Ac 19 - 1000 UNITS	81																				
Ac 20 - 1000 UNITS	1.28																				
Ac 21 - 1000 UNITS	3.88																				
Ac 22 - 1000 UNITS	1.70																				
Ac 23 - 1000 UNITS	3.40																				
Ac 24 - 1000 UNITS	2.50																				
Ac 25 - 1000 UNITS	3.0																				
Ac 26 - 1000 UNITS	1.70																				
Ac 27 - 1000 UNITS	3.00																				
Ac 28 - 1000 UNITS	1.0																				
	30.48																				
TOTAL	131.57	807	1463	766	21	3	686	3503	1778	465	251	136	159	141	33	12	568	1822	363	355	
		10.16	10.16	4.1	0.6	0.06	5.1	16.67	3.67	1.67	0.1	1.04	1.07	0.25	0.02	0.09	0.09	18.2	1.7	0.06	

7.2	0.6	4514	3.53	326d5330	196.4
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Table 3 Existing housing density by project, project type and by bedroom count, secondary bedroom count and people per acre.

EXISTING DENSITY	TOTAL ACRES	TOTAL UNITS	PERCENT	UNITS/ ACRE	BEDROOMS PER ACRE	SECONDARY BEDROOMS PER ACRE	TOTAL PEOPLE PER ACRE
FAMILY LOW-RISE							
AJ 2-1 SETH BOYDEN COURT	15.62	586	5.62	32.39	65.17	32.78	91.99
AJ 2-2 PENNINGTON COURT	4.55	212	2.36	46.59	94.95	48.35	134.99
AJ 2-5 BOUTER TERRACE	12.67	444	4.93	35.84	89.58	54.46	138.63
AJ 2-7 MYRTLE COURT	9.75	336	3.73	34.46	88.62	54.15	138.34
AJ 2-8 FELIX PAUL COURT	6.73	297	3.38	44.13	88.41	44.28	124.18
AJ 2-9 ROOSEVELT HOMES	11.55	236	2.62	28.43	46.41	25.97	67.48
AJ 2-14 PAROLEY COURT	9.71	239	2.56	23.69	64.88	41.19	96.48
	78.58	2261	25.12	32.83	73.88	41.77	186.65
FAMILY TOWNHOUSES							
AJ 2-4 STEPHEN CRANE	14.26	328	3.56	22.44	49.66	27.42	71.78
AJ 2-20 PAROLEY COURT II	1.53	24	8.27	15.69	39.22	23.53	56.47
AJ 2-27 (NO NAME)	5.89	183	1.14	17.49	62.14	44.15	56.11
AJ 2-29 WOODLAND AVENUE	2.27	47	8.52	28.78	78.48	49.78	106.24
AJ 2-30 PARCEL 35A	2.58	58	8.56	19.38	65.12	45.74	99.77
AJ 2-31 THOMPSON'S PARKING LOT	1.58	27	8.38	18.98	72.88	54.98	113.48
AJ 2-31 CLINTON HILL	2.88	34	8.38	14.91	59.65	44.74	93.95
AJ 2-35 WEST SIDE VILLA	4.58	95	1.86	28.74	68.34	47.68	104.34
AJ 2-36 BROADWAY	3.66	89	8.99	24.32	66.33	42.88	97.62
AJ 2-37 BROADWAY	3.21	95	1.86	23.68	68.85	39.25	97.29
AJ 2-38 NEW SITE	9.28	143	1.59	15.54	52.72	37.17	88.98
	58.96	1027	11.41	28.15	58.38	38.15	87.48
FAMILY HIGH-RISE							
AJ 2-12 HAYES (PHASE 1)	9.58	118	1.31	12.32	38.58	18.17	44.98
(PHASE 2)	9.58	482	5.36	58.34	106.95	56.61	156.68
AJ 2-19 SCUDDER (PHASE 1)	7.88	258	2.89	33.33	85.98	52.56	128.88
(PHASE 2)	7.88	128	1.33	15.38	53.85	38.46	83.88
AJ 2-13, 15, 18 & 11	58.39	2159	23.99	36.98	84.26	47.29	128.58
	93.14	3139	34.88	33.78	78.66	44.95	114.88
ELDERLY HIGH-RISE PROJECTS							
AJ 2-16 STEPHEN CRANE ELD.	1.99	177	1.97	88.94	188.94	188.88	248.85
AJ 2-17 KETCHUM ELDERLY	1.58	176	1.96	111.39	236.71	125.32	325.82
AJ 2-18 HAYES ELDERLY	.81	72	8.88	88.89	148.15	59.26	208.88
AJ 2-19 SCUDDER ELDERLY	2.28	216	2.48	98.18	228.88	121.82	387.64
AJ 2-21E BETH BOYDEN ELD.	3.88	256	2.84	85.33	182.67	97.33	252.88
AJ 2-21F BETH BOYDEN ELD.	1.78	168	1.78	94.12	208.88	105.88	275.29
AJ 2-22B BRITTON ELDERLY	3.48	196	2.18	57.65	122.25	64.71	168.35
AJ 2-22C STEPHEN CRANE ELD.	2.98	295	3.28	101.72	213.79	112.87	293.28
AJ 2-22D STEPHEN CRANE ELD.	3.18	295	3.28	95.16	208.88	104.84	274.25
AJ 2-21A KETCHUM ELDERLY	3.78	324	3.68	87.57	187.83	99.46	257.84
AJ 2-25 J.C. WHITE WARD	3.88	286	2.29	68.67	154.67	86.88	216.68
AJ 2-1 BRANCH BROOK WARD	3.18	288	2.22	64.52	135.48	78.97	185.81
	38.46	2573	28.59	84.42	179.59	95.18	247.65
***TOTAL DEFICIT	245.14	9888		36.71	85.58	48.87	122.97

Table 4 Need for and supply of housing by current tenants, by project, project type, unit type and bedroom count.

DEMAND FOR HOUSING										SUPPLY OF HOUSING											
		FAMILY UNITS				ADULT		ELDERLY		TOTAL PERCENT UNITS			FAMILY UNITS				ADULT		ELDERLY		TOTAL UNITS
		2-BR	3-BR	4-BR	5-BR	1-BR	2-BR	1-BR	2-BR			2-BR	3-BR	4-BR	5-BR	1-BR	2-BR	1-BR	2-BR		
FAMILY LOW-RISE																					
NJ 2-1	SETH BOYDEN COURT	81	109	29	4	79	68	55	17	434	5.29	256	95	0	0	178	0	0	0	529	
NJ 2-2	PENNINGTON COURT	36	51	17	0	48	29	25	7	295	2.58	119	29	0	0	86	0	0	0	234	
NJ 2-5	BRATER TERRACE	181	114	17	4	85	64	183	21	599	6.28	296	187	0	0	165	0	0	0	568	
NJ 2-7	HARTY COURT	88	108	24	3	58	42	59	14	380	4.73	186	89	15	0	131	0	0	0	481	
NJ 2-8	FELIX FIELD COURT	39	63	15	3	38	36	51	11	256	3.12	156	71	0	0	79	0	0	0	297	
NJ 2-9	ROOSEVELT HOMES	34	62	11	2	58	34	42	12	255	3.11	189	64	0	0	188	0	0	0	273	
NJ 2-14	BRADLEY COURT	74	56	9	1	34	53	44	13	284	3.46	181	75	0	0	45	0	0	0	381	
		453	563	122	17	384	318	379	95	2331	28.41	1383	538	15	0	755	0	0	0	2683	
FAMILY TOWNHOUSES																					
NJ 2-6	STEPHEN CRANE	34	42	3	2	49	49	127	23	329	4.81	147	71	0	0	136	0	0	0	354	
NJ 2-20	BRADLEY COURT II	7	11	0	1	0	3	0	0	22	0.27	0	12	12	0	0	0	0	0	24	
NJ 2-27	(NO NAME)	7	59	22	9	0	4	0	0	101	1.23	0	58	33	12	0	0	0	0	103	
		48	112	25	12	49	56	127	23	452	5.54	147	141	45	12	136	0	0	0	481	
FAMILY LOW/HIGH-RISE																					
NJ 2-10	KRETCHMER HOMES	81	114	48	18	46	41	38	8	378	4.61	51	0	0	0	88	283	0	0	414	
NJ 2-11	WALSH HOMES	65	122	56	28	34	38	9	3	329	4.13	15	36	6	3	75	215	0	0	358	
		146	236	104	38	80	71	39	11	717	8.74	66	36	6	3	163	498	0	0	764	
FAMILY HIGH-RISE PROJECTS																					
NJ 2-12	HAYES HOMES	129	244	53	9	89	68	38	18	648	7.98	0	0	0	0	191	833	0	0	1084	
NJ 2-13	COLUMBUS HOMES	84	151	56	23	27	88	19	13	453	5.52	0	0	0	0	96	781	0	0	877	
NJ 2-15	STELLA WRIGHT	177	334	188	29	188	96	32	14	816	18.94	0	0	0	0	144	687	0	0	731	
NJ 2-19	BODDNER HOMES	56	84	25	6	91	74	152	22	518	6.21	0	0	0	0	154	724	148	52	1878	
		446	813	242	67	315	318	241	67	2583	38.58	0	0	0	0	585	3065	148	52	3782	
ELDERLY HIGH-RISE PROJECTS																					
NJ 2-16	STEPHEN CRANE ELD.	0	0	0	0	18	1	145	7	171	2.88	0	0	0	0	0	0	133	22	155	
NJ 2-17	KRETCHMER ELDERLY	0	0	0	0	7	3	75	3	88	1.07	0	0	0	0	0	0	132	22	154	
NJ 2-18	HAYES ELDERLY	0	0	0	0	0	0	68	6	66	0.88	0	0	0	0	0	0	65	11	76	
NJ 2-21E	SETH BOYDEN ELD.	0	0	0	0	46	4	162	18	224	2.73	0	0	0	0	0	0	188	36	216	
NJ 2-21F	SETH BOYDEN ELD.	0	0	0	0	29	1	183	5	138	1.68	0	0	0	0	0	0	189	28	128	
NJ 2-22B	BRATER ELDERLY	0	0	0	0	48	3	175	6	224	2.73	0	0	0	0	0	0	138	24	154	
NJ 2-22C	STEPHEN CRANE ELD.	0	0	0	0	27	3	278	17	325	3.96	0	0	0	0	0	0	194	38	234	
NJ 2-22D	STEPHEN CRANE ELD.	0	0	0	0	0	0	237	38	327	3.98	0	0	0	0	0	0	194	38	234	
NJ 2-21A	KRETCHMER ELDERLY	0	0	0	0	16	1	211	9	239	2.91	0	0	0	0	0	0	228	44	264	
NJ 2-25	J.C. WHITE WING	0	0	0	0	0	0	147	58	197	2.48	0	0	0	0	0	0	154	32	286	
NJ 2-1	BRANCH BROOK WING	0	0	0	0	2	2	177	17	198	2.41	0	0	0	0	0	0	188	28	288	
		0	0	0	0	189	18	1839	168	2197	26.77	0	0	0	0	0	0	1682	311	1993	
		1893	1724	493	126	1817	781	2616	356	8286		1516	787	66	15	1631	3283	1622	362	9623	
		13.32	21.81	6.81	1.54	12.33	5.52	31.88	4.34	68.86		15.75	7.35	0.69	0.15	16.95	36.48	18.93	3.77		

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Table 5 Proposed housing mix by project, project type, unit type and bedroom count.

PROPOSED MIX		ACRES	FAMILY LOW-RISE					FAMILY HIGH-RISE					TOWNHOUSES					ADULT		ELDERLY			TOTAL UNITS	PERCENT
			1-BR	2-BR	3-BR	4-BR	5-BR	2-BR	3-BR	4-BR	5-BR	1-BR	2-BR	3-BR	4-BR	5-BR	1-BR	2-BR	0-BR	1-BR	2-BR			
FAMILY LOW-RISE																								
NJ 2-1	SETH BOYDEN COURT	15.62	133	249	189	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	546	5.62	
NJ 2-2	PENNINGTON COURT	4.55	60	100	40	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	212	2.36	
NJ 2-5	BATTER TERRACE	12.67	30	104	193	20	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	444	4.93	
NJ 2-7	HARTY COURT	9.75	40	120	120	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	336	3.73	
NJ 2-8	FELIX FUD COURT	6.73	70	156	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	297	3.30	
NJ 2-9	ROOSEVELT HOMES	11.55	60	60	72	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	236	2.62	
NJ 2-14	BRADLEY COURT	9.71	20	80	60	40	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	2.56	
FAMILY TOWNHOUSES																								
NJ 2-6	STEPHEN CRANE	14.26	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2261	25.12	
NJ 2-20	BRADLEY COURT II	1.53	0	0	0	0	0	0	0	0	0	0	147	71	34	0	0	0	0	0	0	260	3.56	
NJ 2-27	(NO NAME)	5.89	0	0	0	0	0	0	0	0	0	0	12	12	0	0	0	0	0	0	0	24	0.27	
NJ 2-29	WOODLAND AVENUE	2.27	0	0	0	0	0	0	0	0	0	0	0	58	33	12	0	0	0	0	0	103	1.14	
NJ 2-30	PARCEL 35A	2.50	0	0	0	0	0	0	0	0	0	0	0	33	9	5	0	0	0	0	0	47	0.52	
NJ 2-31	THOMAS PARKS LOT	1.50	0	0	0	0	0	0	0	0	0	0	0	36	10	4	0	0	0	0	0	50	0.56	
NJ 2-31	CLINTON HILL	2.28	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27	0.30	
NJ 2-35	WEST SIDE VILLA	4.50	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0	34	0.38	
NJ 2-36	BROADWAY	3.66	0	0	0	0	0	0	0	0	0	0	0	73	16	6	0	0	0	0	0	95	1.06	
NJ 2-37	BROADWAY	3.21	0	0	0	0	0	0	0	0	0	0	0	35	39	10	2	0	0	0	0	89	0.99	
NJ 2-38	(NEW SITE)	9.20	0	0	0	0	0	0	0	0	0	0	0	72	17	4	2	0	0	0	0	95	1.06	
		50.95	68	0	0	0	0	0	0	0	0	0	263	439	287	44	0	0	0	0	0	1827	11.41	
FAMILY HIGH-RISE																								
NJ 2-12	HAVES (PHASE 1)	9.50	0	11	0	0	0	0	0	0	0	0	0	42	15	3	25	22	0	0	0	110	1.31	
	(PHASE 2)	9.50	0	0	0	0	0	0	0	0	0	0	14	182	40	25	200	100	0	0	0	482	5.36	
NJ 2-19	SCHODER (PHASE 1)	7.60	0	30	0	0	0	0	0	0	0	0	0	72	36	22	60	40	0	0	0	260	2.89	
	(PHASE 2)	7.60	0	0	0	0	0	0	0	0	0	0	0	72	36	12	0	0	0	0	0	120	1.33	
OTHER HIGH-RISE PROJECTS		58.39	0	0	152	0	4	0	182	35	0	0	0	160	60	26	204	100	0	404	80	2159	23.99	
		93.14	0	41	152	0	4	0	182	35	0	0	14	440	195	89	569	842	0	408	80	3139	34.80	
ELDERLY HIGH-RISE PROJECTS																								
NJ 2-16	STEPHEN CRANE ELD.	1.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155	22	177	1.97		
NJ 2-17	KATCHNER ELDERLY	1.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	22	176	1.96		
NJ 2-18	HAVES ELDERLY	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	0.80		
NJ 2-19C	SCHODER ELDERLY	2.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	40	0	0	0	216	2.40	
NJ 2-21E	SETH BOYDEN ELD.	3.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	52	216	2.40		
NJ 2-21F	SETH BOYDEN ELD.	1.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	36	236	2.64		
NJ 2-22B	BATTER ELDERLY	3.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	20	160	1.70		
NJ 2-22C	STEPHEN CRANE ELD.	2.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172	24	196	2.18		
NJ 2-22D	STEPHEN CRANE ELD.	3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	265	30	295	3.28		
NJ 2-21A	KATCHNER ELDERLY	3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	265	30	295	3.28		
NJ 2-25	J.C. WHITE MANOR	3.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	44	324	3.60		
NJ 2-1	BRANCH BROOK MANOR	3.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	52	206	2.29		
		28.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	46	0	2149	352	2573	28.59	
TOTAL PERCENT		245.16	481	1010	837	175	31	0	182	35	0	0	283	807	482	133	593	890	0	2149	432	9000		
			5.34	11.22	9.30	1.94	0.34	0.00	2.02	0.33	0.00	0.00	3.14	9.86	4.47	1.48	6.53	9.89	0.00	23.21	4.60			
Newark Redevelopment and Housing Authority																								

Table 6 Current Implementation Program.

The Master Plan has been evolving for several years, and many of its precepts have been advanced for decades. The Master Plan policies, therefore, are being implemented through specific programs at individual housing projects as follows:

P R O G R A M	STATUS - DECEMBER 31, 1984
New Townhouses	61 under construction. 376 out for bid.
Raxter Complex (NJ 2-5, 22B)	Schematics completed and under staff review. Design program under staff review.
Hayes Homes (NJ 2-12)	Schematics in process. Program reviewed by staff, tenant leadership and residents.

Scudder Homes (NJ 2-19)

Most construction completed at elderly building. Schematics in process for family buildings and reviewed by staff, tenant leadership and residents.

Kretschmer/Boyden Complex (NJ 2-1, 10, 17, 21A, E & F)

Schematics in process and reviewed by staff. Presentation to tenant leadership scheduled for January 1985.

Low-rise Projects Apartment "Marriages"

Design completed for NJ 2-6. Implementation completed at N.J. 2-1, 2-2 and 2-8.

Low-rise Window Re- placement. Roof Re- placement at Pennington Court (NJ 2-2), Felix Fuld (NJ 2-8), and Bradley Court (NJ 2-14)

Architectural proposals received.

Walsh Homes (NJ 2-11) Columbus Homes (NJ 2-13)

Reviewing consultants' qualifications, following advertisement for professional services.

Public Housing Market Study to determine needs beyond those of current tenants.

Reviewing consultants' qualifications, following advertising for professional services.